



MOTOROLA

TWO-WAY RADIOS

GP680

Portable Radio

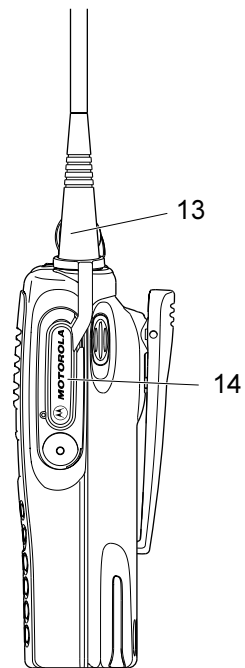
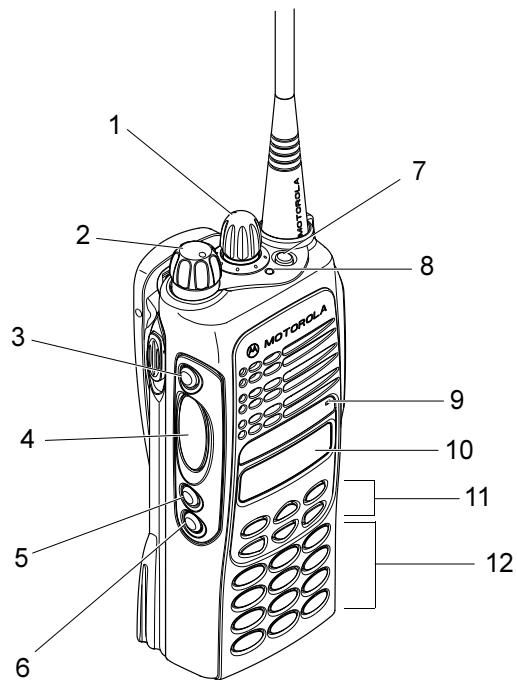
contact

control

Basic User Guide



Professional Radio



BASIC USER GUIDE

CONTENTS

General Information	2
Operation and Control Functions	3
Radio Controls	3
Audio Signal Tones	4
Programmable Buttons	6
Menu Keys	6
Menu Navigation Chart	7
Keypad Keys	8
Keypad/Character Table	9
LCD Display and Icons	10
Getting Started	11
Radio On-Off/Volume Control	11
Radio Operation	11
Sending a Call	11
Receiving a Call	11
Cancelling a Call	12
Ending a Call	12
Battery Information	12
Battery Care and Tips	12
Recycling or Disposal of Batteries	13
Charging the Battery	13

Accessory Information14

Attaching/Removing the Battery 14

Attaching/Removing the Belt Clip 14

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GENERAL INFORMATION

This user guide covers the basic operation of the GP680 Portable Radio. Please consult your dealer for further, more detailed information which is contained in a full feature user guide 68P64110B29_.



Caution

Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet 68P64117B25_ enclosed with your radio.

ATTENTION!

This radio is restricted to occupational use only to satisfy ICNIRP RF energy exposure requirements. Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet (Motorola Publication part number 68P64117B25_) to ensure compliance with RF energy exposure limits.


OPERATION AND CONTROL FUNCTIONS












Radio Controls










The numbers below refer to the illustrations on the inside front cover.

1. Rotary Knob
Used as a channel selector and for multi-function scrolling.
2. On-Off / Volume Knob
Used to turn the radio on or off, and to adjust the radio's volume.
3. Clear Button (Side Button 1)
Used to cancel a call, clear down at the end of a call or Carrier Monitor (Conventional mode).
4. Push to Talk Button (PTT)
Press and hold down this button to talk, release it to listen.
5. Side Button 2
Personality button, otherwise programmable.
6. Side Button 3 (programmable)
7. Top Button (programmable)
Recommended as Emergency button.
8. LED Indicator
Green: *Flashes to indicate NO SERVICE.*
Red: *On when radio is transmitting.*
Red Flashing: *When transmitting - battery low.*
Red Flashing: *When receiving - channel busy (Conventional Mode).*
9. Microphone
10. LCD Display (1 Line)
11. Menu Keys
12. Keypad
13. Antenna
14. Accessory Connector
Connects headsets, remote speaker/microphones and other accessories. Replace attached dust cap when not in use.

Audio Signal Tones (Normal)

High pitched tone  Low pitched tone 

Tone	Signal	Description
Self test		Power up.
Tone A		Call clear indication.
Tone B		Traffic channel allocated or PTT/ Mic/ Loudspeaker enabled.
Tone C1		System busy.
Tone C2		Unavailable.
Tone C3		Called party busy.
Tone C4		Invalid number.
Tone D		Call set up in progress, wait for further indications.
Tone F		Transaction confirmed, called unit will call back.
Tone G		Look at display for call set up or System information.
Tone H		Invalid entry.

Tone	Signal	Description
Key click		Confidence tone when any key pressed or Call ending alert.
Fail tone		Hardware error or Call timed out (conventional mode).
Tone I		Low battery warning.
Tone K1		Voice Storage recording.
Tone K2		Voice Storage warning.
Tone K3		Voice Storage full.
Tone M1		Talkgroup confirmation.
Tone M2		Talkgroup unavailable.
Tone N1		Out of range alert.
Ring-tones	English/French/ General	Incoming call, press PTT, then wait for further indications.

Audio Signal Tones (Alternative)

High to Low pitched tones



Tone	Signal	Description
Self test		Power up.
Tone A		Call clear indication.
Tone B		Traffic channel allocated or PTT/ Mic/ Loudspeaker enabled.
Tone C1		System busy.
Tone C2		Unavailable.
Tone C3		Called party busy.
Tone C4		Invalid number.
Tone D		Call set up in progress, wait for further indications.
Tone F		Transaction confirmed, called unit will call back.
Tone G		Look at display for call set up or System information.

Tone	Signal	Description
Tone H		Invalid entry.
Key click		Confidence tone when any key pressed or Speech limitation alert.
Fail tone		Hardware error or Call timed out (conventional mode).
Tone I		Low battery warning.
Tone K1		Voice Storage recording.
Tone K2		Voice Storage warning.
Tone K3		Voice Storage full.
Tone M1		Talkgroup Confirmation.
Tone M2		Talkgroup unavailable.
Tone N1		Out of range alert.
Ring tones	English/French/General	Incoming call, press PTT, then wait for further indications.







Programmable Buttons

Several of your radio's keys and buttons can be programmed by your dealer as short-cut buttons for many of the radio's features. Programmable buttons include:

- The top button, side buttons 2 and 3.

Check with your dealer for a complete list of the functions your radio supports.

Menu Keys

Exit	Up	Menu/ Select
		
		
Left	Down	Right

Menu/Select Key

Used to enter the Menu Mode. When you are in the Menu Mode, this key is also used to make menu selections.

Exit Key

Used to move up to the next higher Menu level. When the top level menu is selected this key is used to exit the Menu Mode.

Up Key

Used for scrolling when in Menu Mode.

Down Key

Used for scrolling when in Menu Mode.

Right Key

Moves the cursor right or inserts a space when editing or provides additional information.

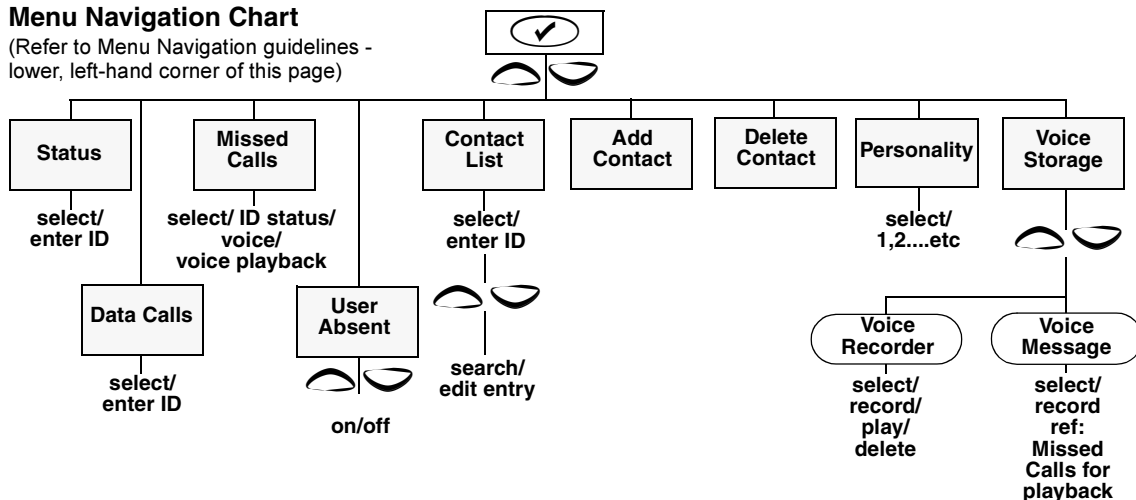
Left Key

Used as a backspace key when editing.

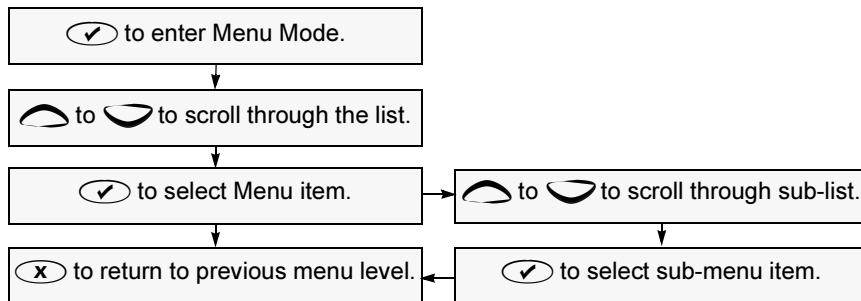
Refer to the menu navigation chart for menu selectable features.

Menu Navigation Chart

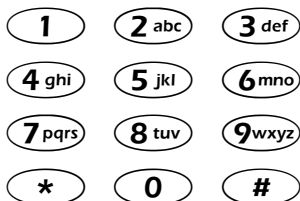
(Refer to Menu Navigation guidelines - lower, left-hand corner of this page)



Menu Navigation




Keypad Keys



These keys are used when dialling a phone number, making a radio call or entering information for programming the radio's lists.

Each key can generate several different characters. For example, to enter the character "C", press the **2 abc** key three times. Refer to the following table. Pressing **#** will toggle between the upper and lower case of the selected character.

If the next character required is on the same key, press  to move the cursor forward one character.

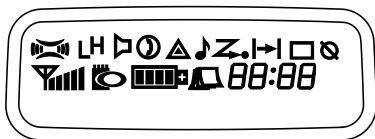
If an error is made, press  to delete the current character and move cursor back one character.

For full character set, refer to the following table.

Entering Characters using the Keypad

	Number of Times Key is Pressed																
Key	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0	+	-	0	x	*	/	=	>	<	#							
1	.	1	? ¸	¿	!	,	@	-	&	:	“	()	’	%	£	\$
2 abc	A	B	C	2	Ä	Å	À	Á	À	Æ	ß	Ç	Ć				
3 def	D	E	F	3	É	È	Ê	Ê	Ë								
4 ghi	G	H	I	4	ì	í											
5 jkl	J	K	L	5	†												
6 mno	M	N	O	6	Ñ	Ñ	Ö	Ò	Ó								
7 pqrs	P	Q	R	S	7	Š											
8 tuv	T	U	V	8	Ü	Ü	Ú										
9 wxyz	W	X	Y	Z	9												
*	Space																
#	Use this key to toggle between UPPER CASE and lower case of the selected character																

LCD Display and Icons



Displays channel, menu, and radio status information. The top two screen rows show radio status indicator symbols, explained in the table below:

Symbol	Name and Description
	XPAND™ Indicator Indicates that you have activated the companding feature.
LH	Power Level Indicator “L” lights when your radio is configured to transmit in Low Power. “H” lights when your radio is configured to transmit in High Power.
	Loudspeaker Indicator Indicates that you have the loudspeaker active.
	Voice Recorder Indicator Indicates that there are stored messages or memos in the voice recorder.
	Scan Indicator Indicates that you are scanning for a system.

Symbol	Name and Description
	Registered Indicator Indicates that a system has been acquired, and monitor in conventional mode.
	Signal Quality Indicator Shows the radio signal quality. Five bars indicates the best signal.
	Option Board Indicator Indicates that an option board is activated.
	Contact List Edit Indicator Indicates user is editing the contact list.
	Data Calls List Indicator On, indicates a data call in the list Flashing, indicates new unread calls.
	Battery Level Indicator Shows the remaining charge in your battery, based on how many bars are displayed. Flashing, indicates flat battery.
	Missed Calls Indicator On, indicates there are missed calls in the missed call list. Flashing, indicates new unread calls.
88:88	Timer Shows the call time.

GETTING STARTED


Radio On-Off/Volume Control



To turn the radio on, turn the On-Off/Volume Control knob clockwise. To turn the radio off, turn the On-Off/Volume Control knob counterclockwise until you hear a click.

Radio Operation

When the self test is complete the radio will display:

Freetext

After this text has been displayed, the radio will scan for system access with the LED on the top of the radio flashing GREEN and the scanning icon  lit.

When a system is acquired, the green LED will go off and the scanning icon  will be replaced by the registered icon  and display will show:

Idle Freetext

Making a Call

Before you can make a call the radio must be in the IDLE STATE, as displayed above, i.e. a personality has been selected and no call is in progress.

The radio is capable of making a variety of calls, including calls to individual radios, groups of radios and calls to private and public telephone systems.

Please contact your dealer for further information.

Receiving a Call


There are two types of systems on which the radio may be used, Off Air Call Set Up (OACSU) and Full Off Air Call Set Up (FOACSU). If you are in doubt about which system you are operating on, please consult your dealer.

Receiving a call on an OACSU system -

When the radio is called tone D will sound and the LED and display flashes. This will then be followed by tone B.

Receiving a call on an FOACSU system -

When the radio is called, a ringing tone will sound and the LED and display flashes.

Press either the PTT or  key to accept the call. Tone D will sound until a speech channel is allocated, then tone B sounds.

Note: The system may have a limited call time and the call may be terminated automatically if this call time is exceeded.

Cancelling a Call

At any time while setting up a call it may be cancelled by pressing the clear button, the **(X)** key or by dialling **(*)** **(#)**. The call timer can also cancel a call.

Ending a Call

A call should always be ended by pressing the clear button, the **(X)** key or by dialling **(*)** **(#)**.

BATTERY INFORMATION

Battery Care and Tips

This product is powered by a nickel-cadmium (Ni-Cd), nickel-metal-hydride (NiMH), or lithium-ion rechargeable battery.

The following battery tips will help you obtain the highest performance and longest cycle life from your Motorola rechargeable battery.

- Charge your new battery overnight (**14-16 hrs**) before using it to obtain maximum battery capacity and performance.
- Charging in non-Motorola equipment may lead to battery damage and void the battery warranty.
- When charging a battery that is attached to the radio, turn the radio off to ensure a full charge.

- The battery should be at about 25°C/77°F (room temperature) whenever possible. Charging a cold battery (below 10°C/50°F) may result in leakage of electrolyte and ultimately, in failure of the battery.
- Charging a hot battery (above 35°C/95°F) results in reduced discharge capacity, affecting the performance of the radio. Motorola rapid-rate battery chargers contain a temperature-sensing circuit to ensure that the battery is charged within these temperature limits.
- New batteries can be stored up to two years without significant cycle loss. Store new/unused batteries in a cool dry area.
- Batteries which have been in storage should be charged overnight.
- Do not return fully charged batteries to the charger for an “extra boost”. This action will **significantly** reduce battery life.
- Do not leave your radio and battery in the charger when not charging. Continuous charging will shorten battery life. (Do not use your charger as a radio stand.)
- For optimum battery life and operation use only Motorola brand chargers. They were designed to operate as an integrated energy system.

Recycling or Disposal of Batteries


At the end of its useful life, the NiCd battery can be recycled. However, recycling facilities may not be available in all areas.



Motorola endorses and encourages the recycling of all re-chargeable batteries. Contact your dealer for further information.

Charging the Battery

If a battery is new, or its charge level is very low, you will need to charge the battery before you can use it in your radio.

The  icon flashes when the battery is flat and will disappear when the radio is placed into the charger. This icon will only appear when a genuine Motorola battery is used.

Note: Batteries are shipped uncharged from the factory. New batteries could prematurely indicate full charge, charge a new battery for **14-16 hrs** before initial use.

Charger LED	Status
Red	Battery is charging
Green	Battery is fully charged
Flashing Red *	Battery is unchargeable
Flashing Yellow	Charger is getting ready to charge
Flashing Green	Battery is 90% charged

* Battery is damaged. Please contact your dealer.

1. Place the radio with the battery attached, or the battery alone, in the charger.
2. The charger's LED indicates the charging progress.

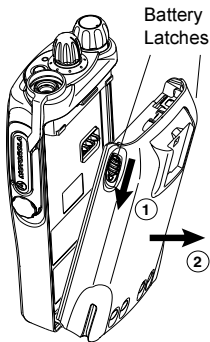
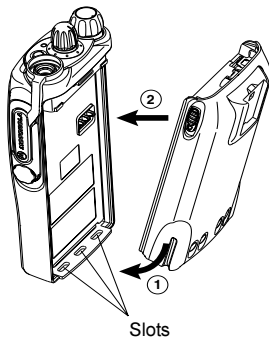
Battery chargers will charge only the Motorola authorized batteries listed below; other batteries will not charge.

Part No.	Description
HNN9008	High-Capacity NiMH
HNN9009	Ultra-High-Capacity NiMH
HNN9010	Ultra-High-Capacity Factory Mutual NiMH
HNN9011	High-Capacity Factory Mutual NiCd
HNN9012	High-Capacity NiCd
HNN9013	Lithium-Ion

ACCESSORY INFORMATION

Attaching the Battery

1. Fit the extensions at the bottom of the battery into the slots at the bottom of the radio's body.
2. Press the top part of the battery towards the radio until you hear a click.



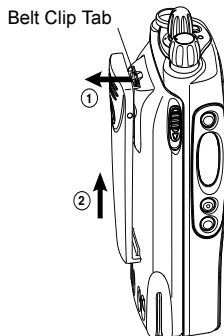
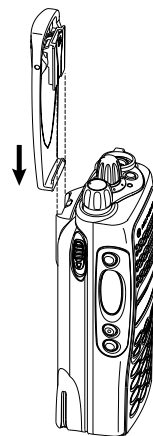
Removing the Battery

Ensure radio is switched off.

1. Slide the battery latches, on both sides of the battery, downwards.
2. Pull the top part of the battery away from the radio's body, and remove the battery.

Attaching the Belt Clip

1. Align the grooves of the belt clip with those of the battery.
2. Press the belt clip downwards until a click is heard.



Removing the Belt Clip

1. Use a key to press the belt clip tab away from the battery.
2. Slide the belt clip upwards to remove it.

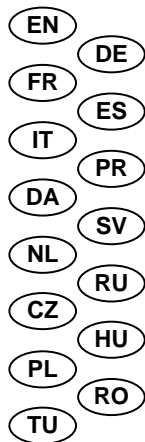
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